

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

Application No.: 10/776,636

Attorney Docket No.: Q79876

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A fixing device comprising:

a heating roller brought into pressure contact with a pressurizing roller, the heating roller comprising:

a first heater for heating a central region of the heating roller; and

a second heater for heating side end regions of the heating roller on both sides of the central region,

wherein a peak of heat distribution of the first heater is located at or near a side end of an image region; and

wherein the first heater comprises coil filaments operable to emit light of a first amount and wire filaments which are provided alternately in the central region and further comprises holding portion filaments which are coil filaments operable to emit light of a second amount less than a first amount and which are provided on the outside of the image region.
2. (original): The fixing device according to claim 1, wherein the peak of heat distribution of the first heater is located on an outside of the side end of the image region.
3. (canceled).

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4. (previously presented): A fixing device comprising:
a heating roller brought into pressure contact with a pressurizing roller, the heating roller comprising:
a first heater for heating a central region of the heating roller; and
a second heater for heating side regions of the heating roller on both sides of the central region,
wherein a peak of heat distribution of the first heater and a peak of heat distribution of the second heater are overlapped; and
wherein the second heater comprises coil filaments operable to emit light of a first amount and wire filaments which are provided alternately in the side end regions, and further comprises holding portion filaments which are coil filaments operable to emit light of a second amount less than the first amount and which are provided in the central region; and
wherein the peak of heat distribution of the second heater is generated by the coil filaments.
5. (canceled).
6. (previously presented): The fixing device according to claim 4, wherein a plurality of the coil filaments are provided on the second heater in each of the side end regions, and a length of one of the coil filaments located on an outer side is greater than a length of another one of the coil filaments located on an inner side.

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7. (previously presented): The fixing device according to claim 4, wherein a temperature sensor is provided near at least one end of the heating roller where the peak of heat distribution of the first heater is located.

8. (previously presented): The fixing device according to claim 4, wherein a temperature sensor is provided in a central part of the heating roller.

9. (currently amended): A fixing device comprising:
a heating roller brought into pressure contact with a pressurizing roller, the heating roller comprising:
a first heater ~~for heating~~ having a first coil filament operable to heat a central region of the heating roller, and first holding portion filaments holding the first coil filament; ~~and~~
a second heater ~~for heating~~ having second coil filaments operable to heat side end regions of the heating roller on both sides of the central region, and a second holding portion filament holding the second coil filaments; and
~~wherein~~ a temperature sensor ~~for detecting~~ operable to detect a temperature of the heating roller ~~is provided on and opposing~~ a non-overlapping portion ~~where a heating portion of~~
in which the first heater-coil filament and a holding portion of the second heater-holding portion
filament are not overlapped.

10. (canceled)

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11. (original): The fixing device according to claim 9, wherein the temperature sensor is provided in a central part of the heating roller.

12. (currently amended): A fixing device comprising:
a heating roller brought into pressure contact with a pressurizing roller, the heating roller comprising:
a first heater having a first coil filament operable to heat for heating a central region of the heating roller, and first holding portion filaments holding the first coil filament; and
a second heater having second coil filaments operable to heat for heating side end regions of the heating roller on both sides of the central region, and a second holding portion filament holding the second coil filaments; and
~~wherein~~ a temperature sensor for detecting operable to detect a temperature of the heating roller ~~is provided on and opposing~~ an overlapping portion where ~~in which one of the first holding portion filaments and one of the second coil filaments~~ a heating portion of the first heater and a holding portion of the second heater are overlapped.

13. (canceled)

14. (original): The fixing device according to claim 12, wherein the temperature sensor is provided on an end of the heating roller.

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15. (currently amended): The fixing device according to claim 9, wherein the first ~~heater includes the heating portion opposing the central region and~~ coil filament is formed by coil filaments operable to emit light of a first amount and wire filaments which are arranged alternately, and ~~holding portions opposing the side end regions and~~ each of the first holding portion filaments is formed by alternately arranging ~~the wire filaments and holding portion filaments, the holding portion filaments being~~ coil filaments operable to emit light of a second amount less than the first amount.

16. (currently amended): The fixing device according to claim ~~15~~9, wherein each of the second coil filaments is ~~heater includes heating portions opposing the side end regions and~~ formed by coil filaments operable to emit light of a first amount and wire filaments which are arranged alternately and the second holding portion filament is ~~opposing the central region and~~ formed by arranging ~~the wire filaments and holding portion filaments, the holding portion filaments being~~ coil filaments operable to emit light of a second amount less than the first amount.

17. (currently amended): The fixing device according to claim 16, wherein ~~a plurality of the coil filaments are provided in each of the side end regions, and~~ a length of one of the coil filaments forming each of the second coil filaments and located on an outer side is greater than a length of another one of the coil filaments forming each of the second coil filaments and located on an inner side.

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18. (currently amended): The fixing device according to claim 16, wherein phases of the alternate arrangement of the ~~holding portion~~coil filaments and the ~~second~~ wire filaments for forming each of the second coil filaments and that the alternate arrangement of the coil filaments and the ~~first~~ wire filaments for forming the second holding portion filament are shifted from each other.

19. (previously presented): The fixing device according to claim 9, wherein a peak of heat distribution of the first heater and a peak of heat distribution of the second heater are overlapped in the side end regions.

20. (previously presented): A fixing device comprising:
a heating roller brought into pressure contact with a pressurizing roller, the heating roller comprising:
a first heater for heating a central region of the heating roller; and
a second heater for heating side end regions of the heating roller on both sides of the central region,

wherein first coil filaments operable to emit light of a first amount and first wire filaments are alternately provided in the first heater at the central region with phases alternated with phases of second wire filaments and first holding portion filaments which are provided in the second heater alternately at the central region; and

wherein the first holding portion filaments are coil filaments operable to emit light of a second amount less than the first amount.

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21. (previously presented): A fixing device comprising:
- a heating roller brought into pressure contact with a pressurizing roller, the heating roller comprising:
- a first heater for heating a central region of the heating roller; and
- a second heater for heating side end regions of the heating roller on both sides of the central region,
- wherein the first heater has first coil elements operable to emit light of a first amount and wire filaments which are alternately arranged so as to oppose the central region;
- wherein the second heater comprises first holding portion filaments which are coil filaments operable to emit light of a second amount less than the first amount provided so as to oppose the wire filaments of the first heater.
22. (original): The fixing device according to claim 20, wherein a peak of heat distribution of the first heater and a peak of heat distribution of the second heater are overlapped in the side end region.
23. (previously presented): The fixing device according to claim 22, wherein the first heater has second holding portion filaments, which are coil filaments operable to emit light of an amount less than the first amount and which oppose the side end regions.

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24. (previously presented): The fixing device according to claim 22, wherein the second heater has second coil filaments operable to emit light of an amount greater than the second amount and which oppose the side end regions.

25. (previously presented): The fixing device according to claim 24, wherein a plurality of the second coil filaments are provided in each of the side end regions, and a length of one of the second coil filaments located on an outer side is greater than a length of another one of the second coil filaments located on an inner side.

26. (original): An image forming apparatus comprising the fixing device according to claim 1.

27. (currently amended) The fixing device according to claim 12, wherein the first ~~heater includes the heating portion opposing the central region and~~ coil filament is formed by coil filaments operable to emit light of a first amount and wire filaments which are arranged alternately, and ~~holding portions opposing the side end regions and~~ each of the first holding portion filaments is formed by alternately arranging the wire filaments and ~~holding portion filaments which are~~ coil filaments operable to emit light of a second amount less than the first amount.

28. (currently amended) The fixing device according to claim ~~27~~12, wherein each of the second coil filaments is ~~heater includes heating portions opposing the side end regions and~~ formed by coil filaments operable to emit light of a first amount and wire filaments which are

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arranged alternately and the second holding portion filament is opposing the central region and
formed by arranging ~~the~~ wire filaments and ~~holding portion filaments which are~~ coil filaments
operable to emit light of a second amount less than the first amount.

29. (currently amended) The fixing device according to claim 28, wherein phases of
the alternate arrangement of the ~~holding portion~~coil filaments and the ~~second~~ wire filaments for
forming each of the second coil filaments and that the alternate arrangement of the coil filaments
and the first wire filaments for forming second holding portion filament are shifted from each
other.

30. (previously presented) An image forming apparatus comprising the fixing device
according to claim 4.

31. (previously presented) An image forming apparatus comprising the fixing device
according to claim 9.

32. (previously presented) An image forming apparatus comprising the fixing device
according to claim 12.

33. (previously presented) An image forming apparatus comprising the fixing device
according to claim 20.

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34. (previously presented) An image forming apparatus comprising the fixing device according to claim 21.